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CERN-SL-98-001 DI

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Geneva, Switzerland

28.01.98



CERN-SL-97-01

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LIST OF SL DIVISIONAL REPORTS PUBLISHED IN 1996

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CERN-SL-97-02

AP

Bunch Trains for LEP

Goddard, B.; Herr, W. ; Keil, E.; Lamont, M. ;  
Meddahi, M. ; Peschardt, E.*Presented at : Submitted to Particle Accelerators*

CERN-SL-97-03

AP

Normal Mode Laslett Coefficients  
for One (co-Axial) and Two (Offset) Liners  
in a Circular Magnetic Yoke

Petracca, S.\*

*Presented at :*

CERN-SL-97-04

EA

Simulation of Off-Energy Electron Background in DELPHI

Falk, E.\*; Hedberg, V.\*; von Holtey, G.

*Presented at :*

CERN-SL-97-05

EA

Deflection of 200 GeV/c and 450 GeV/c Positively  
Charged Particles in a Bent Germanium CrystalC. Biino<sup>a</sup>, M. Clément<sup>a</sup>, N. Doble<sup>a</sup>, K. Elsener<sup>a</sup>,  
A. Freund<sup>c</sup>, L. Gatignon<sup>a</sup>, P. Grafström<sup>a</sup>,  
K. Kirsebom<sup>b</sup>, U. Mikkelsen<sup>a,b</sup>, S.P. Møller<sup>b</sup>,  
E. Uggerhøj<sup>b</sup>, T. Worm<sup>b</sup>*Presented at : Submitted to Physics Letters B*

**CERN-SL-97-06****DI****Proceedings of the Seventh LEP Performance Workshop  
Chamonix, January 14-17, 1997**

Edited by Poole, J.

*Presented at :***CERN-SL-97-07****DI****The SPS as Injector for LHC - Conceptual Design**Collier, P.; Goddard, B.; Jung, R.; Kissler, K.H.;  
Linnecar, T.; Ruggiero, F.; Scandale, W.; Schindl,  
K.; Schröder, G.; Shaposhnikova, E.; Vos, L.*Presented at :***CERN-SL-97-08****AP****Wake Potential Expansion using Gaussian Basis Functions**

Meincke, O.

*Presented at :***CERN-SL-97-09****AP****Consideration on the Injector for a Very Large Hadron Collider**

Scandale, W.

*Presented at : Presented at the 34-th Eloisatron Workshop, Erice, Italy, 4-13  
November, 1996***CERN-SL-97-10****MS****Concurrent Optical and Electrical Observations of the "Spontaneous"  
Surface Flashover of Solid Insulators in Vacuum**Xu, N.S.; Latham, R.V. (\*)  
Goddard, B.J.; Tan, J. (\*\*)  
Taylor, W. (\*\*\*)*Presented at : Published in J. Phys. D: Appl. Phys. 30 (1997) 666-675*

**CERN-SL-97-11**                      **AP**                      **Feasibility study for compensating the anharmonicities in LEP with additional octupoles**

Brüning,O.S. ; Koutchouk,J.P.

*Presented at :*

**CERN-SL-97-12**                      **DI**                      **Conclusions of the Seventh LEP Performance Workshop**

Myers,S.

*Presented at :*

**CERN-SL-97-13**                      **AP**                      **Synchrotron Radiation Dominated Hadron Colliders**

Keil,E.

*Presented at : 34th Eloisatron Workshop, Erice, Italy, 4-13 November 1996*

**CERN-SL-97-14**                      **∞**                      **Data Communication Infrastructure available at CERN for Interconnection of Industrial Control Systems**

Lauckner,R.;Lienard,P.;Rausch,R.

*Presented at :*

**CERN-SL-97-15**                      **AP**                      **Intrabeam scattering of lead ion LHC type bunches in the SPS**

Vos,L.

*Presented at :*

<b>CERN-SL-97-16</b>	<b>RF</b>	<b>Microwave Instability and Impedance Measurements in the CERN SPS</b>
Linnecar,T.; Shaposhnikova, E.		<i>Presented at : 3rd International Workshop on High Brightness Beams for Large Hadron Colliders, LHC96, Montreux, Switzerland, October 1996</i>
<b>CERN-SL-97-17</b>	<b>RF</b>	<b>Towards a Transverse Feedback System and Damper for the SPS in the LHC Era</b>
Höfle,W.		<i>Presented at : 3rd International Workshop on High Brightness Beams for Large Hadron Colliders, LHC96, Montreux, Switzerland, October 1996</i>
<b>CERN-SL-97-18</b>	<b>RF</b>	<b>Preparing the SPS for LHC</b>
Linnecar,T.		<i>Presented at : 3rd International Workshop on High Brightness Beams for Large Hadron Colliders, LHC96, Montreux, Switzerland, October 1996</i>
<b>CERN-SL-97-19</b>	<b>AP</b>	<b>Chaotic Particle Motion in Hadron Storage Rings Exhibiting Decreasing Betatron Amplitudes</b>
Fischer, W.*; Schmidt, F.		<i>Presented at : Paper presented at the workshop on Non linear and collective Phenomena in Beam Physics, Arcidosso, September 1996</i>
<b>CERN-SL-97-20</b> <b>CERN-EST-97-02 (ESM)</b>	<b>BT</b>	<b>Coaxial 30 kV Connectors for the RG220/U Cable 20 Years of Operational Experience</b>
Mayer,M.(*); Schröder,G.(**)		<i>Presented at : Paper presented at the 1997 High Voltage Workshop, Newport Beach - CA, U.S.A., May 6-8, 1997</i>

**CERN-SL-97-21****OP****Observations and Simulations of Beam Tails in LEP**

Reichel, I.\*; Burkhardt, H.; Roy, G.

*Presented at : Paper presented at the 1997 Particle Accelerator Conference (PAC'97), Vancouver, Canada, 12-16 May 1997***CERN-SL-97-22****DI****LEP2 : Present and Future Performance and Limitations**

Myers, S.

*Presented at : Paper presented at the 1997 Particle Accelerator Conference (PAC'97), Vancouver, Canada, 12-16 May 1997***CERN-SL-97-23****AP****Beam Echoes in the CERN SPS**Bruening, O.; Linnecar, T.; Ruggiero, F.; Scandale, W.;  
Shaposhnikova, E.; Stellfeld, D.*Presented at : Paper presented at the 1997 Particle Accelerator Conference (PAC'97), Vancouver, Canada, 12-16 May 1997***CERN-SL-97-24****RF****Performance of the LEP2 SRF system**

Boussard, D.

*Presented at : Paper presented at the 1997 Particle Accelerator Conference (PAC'97), Vancouver, Canada, 12-16 May 1997***CERN-SL-97-25****BI****Beam Position Monitor Offset  
Determination at LEP**Tecker, F.\*RWTH Aachen, Germany  
Dehning, B.; Galbraith, P.; Henrichson, K.;  
Placidi, M.; Schmidt, R.*Presented at : Paper presented at the 1997 Particle Accelerator Conference (PAC'97), Vancouver, Canada, 12-16 May 1997*

<b>CERN-SL-97-26</b>	<b>BI</b>	<b>Closed Orbit Feed-Back from Low-Beta Quadrupole Movements at LEP</b>
Tecker, F.*RWTH Aachen, Germany, Coosemans, W.; Marin, A.; Rybaltchenko, K.; Wenninger, J.		<i>Presented at : Paper presented at the 1997 Particle Accelerator Conference (PAC'97), Vancouver, Canada, 12-16 May 1997</i>
<b>CERN-SL-97-27</b>	<b>EA</b>	<b>First Observation of the Deflection of a 33 TeV Pb ION Beam in a Bent Silicon Crystal</b>
Biino, C.; Clément, M.; Doble, N.; Elsener, K.; Gatignon, L.; Grafstrom, P.; Mikkelsen, U. (CERN, Geneva, Switzerland), Taratin, A. * (JINR, Dubna, Russia); Møller, S.P.; Uggerhøj, E.** (ISA, Aarhus University, Denmark) Keppler, P.; Major, J.*** (MPI für Metallforschung, Stuttgart, Germany)		<i>Presented at : Paper presented at the 1997 Particle Accelerator Conference (PAC'97), Vancouver, Canada, 12-16 May 1997</i>
<b>CERN-SL-97-28</b>	<b>EA</b>	<b>Record Deflection Efficiencies Measured for High Energy Protons in a Bent Germanium Crystal</b>
Biino, C.; Clément, M.; Doble, N.; Elsener, K.; Gatignon, L.; Grafstrom, P.; Mikkelsen, U. (CERN, Geneva, Switzerland), Freund, A.* (ESRF, Grenoble, France); Kirsebom, K. Møller, S.P.; Uggerhøj, E.; Worm, T.** (ISA, Aarhus University, Denmark)		<i>Presented at : Paper presented at the 1997 Particle Accelerator Conference (PAC'97), Vancouver, Canada, 12-16 May 1997</i>
<b>CERN-SL-97-29</b>	<b>RF</b>	<b>The Fine Structure of the Longitudinal Machine Impedance Observed with Single Bunches</b>
Bohl, T.; Linnecar, T.; Shaposhnikova, E.		<i>Presented at : Paper presented at the 1997 Particle Accelerator Conference (PAC'97), Vancouver, Canada, 12-16 May 1997</i>
<b>CERN-SL-97-30</b>	<b>AP</b>	<b>Low Emittances Lattices for LEP2</b>
Alexahin, Y.*; Beloshitsky, P.*; Brandt, D.; Herr, W.; Jowett, J.M.; Meddahi, M.; Roy, G.; Verdier, A.		<i>Presented at : Paper presented at the 1997 Particle Accelerator Conference (PAC'97), Vancouver, Canada, 12-16 May 1997</i>



**CERN-SL-97-31****AP****Energy Dependence of Crystal Assisted Extraction  
at the CERN SPS**

Arduini, G.; Elsener, K.; Fidecaro, G.; Gyr, M.;  
Herr, W.; Klem, J.\*; Mikkelsen, U.; Weisse, E.

*Presented at : Paper presented at the 1997 Particle Accelerator Conference  
(PAC'97), Vancouver, Canada, 12-16 May 1997*

**CERN-SL-97-32****AP****Computation of fixed points in a circular machine**

Verdier, A.; Manuch, J. \*

*Presented at : Paper presented at the 1997 Particle Accelerator Conference  
(PAC'97), Vancouver, Canada, 12-16 May 1997*

**CERN-SL-97-33****OP****Energy Dependence of Beam-Beam Interactions at LEP**

Burkhardt, H.

*Presented at : Paper presented at the 1997 Particle Accelerator Conference  
(PAC'97), Vancouver, Canada, 12-16 May 1997*

**CERN-SL-97-34****AP****Parasitic Energy Loss in the LEP Superconducting Cavities**

Arduini, G.; Bruening, O.; Cavallari, G.;  
Gayet, P.; Geschonke, G.; Haebel, E.;  
Hofmann, A.; Jimenez, M.; Meincke, O.;  
Morpurgo, G.; Roy, G.; Schmickler, H.;  
Uythoven, J.; Wagner, A.; Zotter, B.

*Presented at : Paper presented at the 1997 Particle Accelerator Conference  
(PAC'97), Vancouver, Canada, 12-16 May 1997*

**CERN-SL-97-35****AP****Experience with Bunch Train in LEP**

Herr, W.; Goddard, B.; Keil, E.; Lamont, M.;  
Meddahi, M.; Peschardt, E.

*Presented at : Paper presented at the 1997 Particle Accelerator Conference  
(PAC'97), Vancouver, Canada, 12-16 May 1997*

<b>CERN-SL-97-36</b>	<b>AP</b>	<b>Extraction of 22 TeV/c lead ions from the CERN SPS using a bent silicon crystal</b>
Arduini, G.; Cornelis, K.; Elsener, K.; Ferioli, G.; Fidecaro, G.; Gyr, M.; Herr, W.; Klem, J.*; Weisse, E.		<i>Presented at : Paper presented at the 1997 Particle Accelerator Conference (PAC'97), Vancouver, Canada, 12-16 May 1997</i>
<b>CERN-SL-97-37</b>	<b>AP</b>	<b>Energy Loss of Proton and Lead Beams in the CERN-SPS</b>
Arnold, J. ; Bohl, T. ; Burkhardt, H. ; Cornali, R.; Cornelis, K. ; Engelmann, G. ; Giachino, R. ; Hofmann, A. ; Jonker, M. ; Linnecar, T. ; Meddahi, M.; Normann, L. ; Shaposhnikova, E. ; Wagner, A. ; Zotter, B.		<i>Presented at : Paper presented at the 1997 Particle Accelerator Conference (PAC'97), Vancouver, Canada, 12-16 May 1997</i>
<b>CERN-SL-97-38</b>	<b>BI</b>	<b>Noise Reduction on the LEP bunch current measurement system</b>
Burns, A. ; Halvarsson, B. ; Jakob, H. ; Schmickler, H.		<i>Presented at : Paper presented at the 1997 Particle Accelerator Conference (PAC'97), Vancouver, Canada, 12-16 May 1997</i>
<b>CERN-SL-97-39</b>	<b>RF</b>	<b>Design and Construction of a 500 KW CW, 400 MHZ Klystron to be Used as RF Power Source for LHC/RF Components Tests</b>
Frischholz, H.; Fowkes, W.R.*; Pearson, C.*		<i>Presented at : Paper presented at the 1997 Particle Accelerator Conference (PAC'97), Vancouver, Canada, 12-16 May 1997</i>
<b>CERN-SL-97-40</b>	<b>EA</b>	<b>Study of Beam-Induced Particle Backgrounds at the LEP Detectors</b>
von Holtey, G.; Ball, A.H.; Brambilla, E.; Burckhardt, H.; Estabrooks, P.; Harris, F.J.; Lutters, G.; Rothberg, J.; Roudeau, P.; Siegrist, P.; Wear, J.; Weber, P.; Vallazza, E.		<i>Presented at : To be submitted to Nuclear Instruments and Methods</i>

**CERN-SL-97-41****AP****Effect of Synchrotron Radiation on Particle Motion in the Neighbourhood of Resonance Fixed Points**

Alexahin, Y.\*

*Presented at : Submitted to the 14th Advanced ICFA Beam Dynamic Workshop on Beam Dynamic Issues in e+ e- Factories, Frascati, 20-26 October, 1997***CERN-SL-97-42****AP****Transverse Polarization beyond the Z Energy at LEP**

Blondel, A.; Böge, M.; Bravin, E.; Dehning, B.; Placidi, M.; Tecker, F.; Wenninger, J.

*Presented at : Paper presented at the 1997 Particle Accelerator Conference (PAC'97), Vancouver, Canada, 12-16 May 1997***CERN-SL-97-43****DI****Deflection and extraction of Pb ions up to 33 TeV/c by a bent silicon crystal**

Arduini, G.; Biino, C.; Clément, M.; Cornelis, K.; Doble, N.; Elsener, K.; Ferioli, G.; Fidecaro, G.; Freund, A.; Gatignon, L.; Grafström, P.; Gyr, M.; Herr, W.; Keppler, P.; Klem, J.; Major, J.; Mikkelsen, U.; Møller, S.P.; Taratin, A.; Uggerhøj, E.; Weisse, E.

*Presented at : To be submitted to Physical Review Letters***CERN-SL-97-44****RF****Carbon-Fibre-Reinforced Laminates for the Tuning Structure of the LHC RF Cavities**Pflanz, G.<sup>1</sup>; Rödel, V.; Tischhauser, T.*Presented at :***CERN-SL-97-45****BT****Operation Modes of the Fast 60 kV Resonant Charging Power Supply for the LHC Inflectors**Barnes, M.J.; Wait, G.D. (\*)  
Carlier, E.; Ducimetière, L.; Jansson, U.;  
Schröder, G.H.; Vossenberg, E.B. (\*\*)*Presented at : Paper presented at the 11th IEEE International Pulsed Power Conference, 29.6.-2.7.97, Baltimore, Maryland, U.S.A.*

**CERN-SL-97-46****AP****ICFA Beam Dynamic Newsletter No. 14**

Hirata,K.; Jowett,J.M.; Lee,S.Y.

*Presented at :***CERN-SL-97-47****BI****The Influence of Train Leakage Currents on the LEP Dipole Field****LEP Energy Group**Bravin, E.; Brun, G.; Dehning, B.; Drees, A.;  
Galbraith, P.; Geitz, M.; Henrichsen, K.;  
Koratzinos, M.; Mugnai, G.*Presented at : to be submitted to Nuclear Instruments and Methods***CERN-SL-97-48****DI****Instabilities and Beam Intensity Limitations in Circular Accelerators**

Myers,S.

*Presented at : presented at CAS Course Synchrotron Radiation  
GRENOBLE, 22-25 April 1996***CERN-SL-97-49****AP****Beam Transfer Functions and Stability Diagrams for Unbunched Beams**

Berg,S.

*Presented at :***CERN-SL-97-50****AP****Beam Transfer Functions and Stability Diagrams for Bunched Beams**

Berg,S.

*Presented at :*

**CERN-SL-97-51****RF****Experience with the LEP Superconducting  
RF Accelerating System**

Geschonke, G.

*Presented at : Presented at "Pioneering Development in Cryogenic  
Engineering and Materials" Conference, July 28-August 1,  
1997, Portland Oregon USA***CERN-SL-97-52****∞****Integration of Industrial Equipment and Distributed Control Systems  
into the Control Infrastructure at CERN**

Lauckner,R.J;Rausch,R.

*Presented at : International Conference on Accelerator and Large  
Experimental Physics,  
ICALEPCS'97, Beijing, 3-7/11/97***CERN-SL-97-53****∞****Project Management as a Breakthrough at CERN**

Vanden Eynden, M.;Ninin,P.

*Presented at : International Conference on Accelerator and Large  
Experimental Physics,  
ICALEPCS'97, Beijing, 3-7/11/97***CERN-SL-97-54****∞****Building Controls Software around an Object-Oriented Database**

Kostro,K.

*Presented at : International Conference on Accelerator and Large  
Experimental Physics,  
ICALEPCS'97, Beijing, 3-7/11/97***CERN-SL-97-55****AP****On the energy dependence of proton beam extraction with a bent  
crystal**Arduini, G.; Elsener, K.; Fidecaro, G.; Gyr, M.;  
Herr, W.; Klem\*, J.; Mikkelsen\*\*, U.; Weisse, E.*Presented at : To be submitted to Physics Letters B*

<b>CERN-SL-97-56</b>	<b>BT</b>	<b>Outsourcing of the New Wave Form Acquisition, Surveillance and Diagnostic System for the LEP Injection Kickers</b>
E. Carlier, V. Mertens, M.C. Raichs <sup>o</sup> and J. Serrano <sup>o</sup>		<i>Presented at : Paper presented at ICALEPCS'97, 3-7 November 1997, Beijing, China</i>
<b>CERN-SL-97-57</b>	<b>BT</b>	<b>Control Loop for a Pulse Generator of a Fast Septum Magnet using DSP and Fuzzy Logic</b>
Aldaz-Carroll,E.; Carlier,E.; Dieperink,J.H.; Schröder,G.H. ;Vossenber,g,E.		<i>Presented at : Paper presented at ICALEPCS'97, 3-7 November 1997, Beijing, China</i>
<b>CERN-SL-97-58</b>	<b>OP</b>	<b>A LEP (60,60) Optics for Energy Calibration Measurements</b>
Uythoven, J.A.		<i>Presented at :</i>
<b>CERN-SL-97-59</b>	<b>BI</b>	<b>Synchrotron radiation interferences between short dipoles at LEP</b>
Bovet, C.; Burns, A.; Méot, F.; Placidi, M.; Rossa, E.; de Vries, J.		<i>Presented at :</i>
<b>CERN-SL-97-60</b>	<b>EA</b>	<b>The High Hyperon Beam At Cern</b>
Alexandrov,Yu.A.; Clement,M.; Dropman,F.; Fournier,A.; Grafstrom,P.; Hubbard,E.; Paul,S.; Siebert,H.W.; Trombini,A.; Zavertiaev,M.		<i>Presented at : submitted to Nuclear Instruments and Methods A)</i>

**CERN-SL-97-61****AP****Effect of Plane Ground Waves on the Closed Orbit in Circular Colliders**

Keil,E.

*Presented at :***CERN-SL-97-62****RF****Status of Superconducting Cavities in LEP**

Sladen,J.P.H.

*Presented at : Eighth Workshop on RF Superconductivity, Abano Terme (PA), Italy, 6-10 October 1997***CERN-SL-97-63****RF****Production and Test of 352 MHZ  
Niobum-Sputtered Reduced-Beta Cavities**Benvenuti, C. ; Boussard, D. ; Calatroni, S. ;  
Chiaveri, E. ; Tückmantel, J.*Presented at : Eighth Workshop on RF Superconductivity, Abano Terme (PA), Italy, 6-10 October 1997***CERN-SL-97-64****RF****RF Power Tests of LEP2 Main couplers  
on a Single Cell Superconducting Cavity**

Kindermann,H.P.; Stirbet,M.

*Presented at : Eighth Workshop on RF Superconductivity, Abano Terme (PA), Italy, 6-10 October 1997***CERN-SL-97-65****MR****Experience Gained and Lessons Learned during the BA3 Fire Repair  
and Cleanup May-July 1997**

Robin,G.; Spinks,A.

*Presented at :*

SL

SL-DR-97